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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTODC@andrewskurth.com

Office Action Summary

Application No.

10/617,829

Applicant(s)

LICHANA, DANIEL DE

Examiner

MATTHEW SITTNER

Art Unit

3629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 49-66 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 49-66 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-942)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of Claims

1. Claims 1-48 are canceled.
2. Claim 49 is amended.
3. Claims 61-66 are new.
4. Claims 49-66 are pending and have been examined.
5. This action is in reply to the papers filed on 11/23/2010.

Amendment

6. The present Office Action is based upon the original patent application filed on 07/14/2003 as modified by the amendment filed on 11/23/2010.

Drawings

7. Color photographs and color drawings are not accepted unless a petition filed under 37 CFR 1.84(a) (2) is granted. Any such petition must be accompanied by the appropriate fee set forth in 37 CFR 1.17(h), three sets of color drawings or color photographs, as appropriate, and, unless already present, an amendment to include the following language as the first paragraph of the brief description of the drawings section of the specification:

The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the Office upon request and payment of the necessary fee.

Color photographs will be accepted if the conditions for accepting color drawings and black and white photographs have been satisfied. See 37 CFR 1.84(b)(2).

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 49-60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 49, Applicant has improperly amended the claim by placing single brackets around a large number of characters. It is not clear to the Examiner what the Applicant intends. Per MPEP 714 Amendments, and 37 CFR 1.121 the text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters.

Claim Rejections - 35 USC § 101

10. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 61-66 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Applicant claims:

Claim 61 (new). A method using a computer for implementing a land use plan to develop land and create trade specifications for service providers to use in building infrastructure upon land, comprising: ...

However, as claimed any step could be performed mentally in an abstract sense. Thus, applicant's invention is a judicial exception of an abstract idea. In order for a claimed invention to a judicial exception to be patent eligible, it must satisfy the In re Bilski "machine-or-transformation test".

In re Bilski states that:

A method claim must meet a specialized, limited meaning to qualify as a patent-eligible process claim. The test for a method claim is whether the claimed method is

(1) tied to a particular machine or apparatus, or

(2) transforms a particular article to a different state or thing.

This is called the “machine-or-transformation test”.

There are two corollaries to the machine-or-transformation test.

First, a mere field-of-use limitation is generally insufficient to render an otherwise ineligible method claim patent-eligible. This means the machine or transformation must impose meaningful limits on the method claim’s scope to pass the test.

Second, insignificant extra-solution activity will not transform an unpatentable principle into a patentable process. This means reciting a specific machine or a particular transformation of a specific article in an insignificant step, such as data gathering or outputting, is not sufficient to pass the test.

Claim 61 (new). A method using a computer for implementing a land use plan to develop land and create trade specifications for service providers to use in building infrastructure upon land, comprising:

identifying a piece of land, wherein the identification of the piece of land is stored in memory;

Identifying a piece of land... is abstract and may be performed manually and/or mentally. This feature is clearly performed by a human being as nowhere in Applicant’s specification is a computer or machine ever tied to the identifying step.

Applicant makes no tie to a machine or apparatus and there is no transformation. Thus, Applicant’s invention fails the In re Bilski “machine-or-transformation test”.

creating a qualitative and quantitative balance sheet, the qualitative and quantitative balance sheet including data, such included data having been gathered and stored in a computer;

Creating a balance sheet... is abstract and may be performed manually and/or mentally. In Applicant's specification 2004/0117777 [0116], Applicant specifically states that the balance sheet computational tool may be a traditional spreadsheet software which a human developer may populate with data. Thus, the balance sheet is merely a tool which a human uses. Further, the balance sheet merely stores and displays data.

Applicant makes no tie to a machine or apparatus and there is no transformation. Thus, Applicant's invention fails the In re Bilski "machine-or-transformation test".

Further, the balance sheet is construed as an insignificant step (i.e., data gathering or outputting).

classifying, using a computer, a quality of service for a category of service;

Classifying... is abstract and may be performed manually and/or mentally.

Further, the reference to using a computer is construed as an insignificant step (i.e., data gathering or outputting).

Finally, Applicant's specification does not ever indicate that any computer or machine is performing the classifying step. Thus, Examiner construes the classifying step as being performed by a human.

generating a three-dimensional assessment grid using a computer, the three dimensional grid having three axis, the three axis representing x=human, y=economic and z = environmental, wherein the assessment grid shows assessed values of present land use service data within sectors;

Generating a 3D grid... is abstract and may be performed manually and/or mentally.

Further, the reference to a computer is construed as an insignificant step (i.e., data gathering or outputting).

Finally, Applicant's specification 2004/0117777 [0124], Applicant states that a developer may visually represent data to observers via a grid. Thus, it is a human developer using a computer to simply store and display data.

storing data in memory for access by a software program having a relational database wherein services information is stored;

Storing data... is abstract and may be performed manually and/or mentally.

Further, the reference to a database is construed as an insignificant step (i.e., data gathering or outputting).

storing a direct link in the relational database directly linking a first entity to the identified piece of land wherein the direct link includes text or symbols; storing an indirect link in the relational database linking a second entity to the first entity so that the second entity is indirectly linked to the identified piece of land; identifying and storing direct and indirect links between and among various entities;

Storing links in a relational database... are abstract and may be performed manually and/or mentally.

Further, the reference to a database is construed as an insignificant step (i.e., data gathering or outputting).

storing data representing a city infrastructure in the relational database, wherein the relational database includes data on services, wherein the direct and indirect links help define service information for the identified piece of land and wherein one of the services is the city infrastructure;

Storing data representing city infrastructure... is abstract and may be performed manually and/or mentally.

Further, the reference to a database is construed as an insignificant step (i.e., data gathering or outputting).

generating a builder service provider trade specification chart using the qualitative and quantitative balance sheet and the relational database, the builder service provider trade specification chart includes data on the services to be provided by a builder and a graphics representation for the builder to use in providing services; and

Generating trade specification... is abstract and may be performed manually and/or mentally.

Further, the reference to a database is construed as an insignificant step (i.e., data gathering or outputting).

displaying, on a display device, a builder service provider trade specification chart, wherein the builder service provider trade specification chart is used by a builder service provider to construct a building.

Displaying... is abstract and may be performed manually and/or mentally.

Further, the reference to a display device is construed as an insignificant step (i.e., data gathering or outputting).

Applicant's claimed invention fails the In re Bilski "machine-or-transformation test". Applicant's claimed invention is not tied to a particular machine or apparatus and does not transform a particular article to a different state or thing.

The remaining claims are equally and similarly deficient and are rejected under the same rationale as stated above. Further, the dependent claims are rejected for depending from rejected independent claims.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in **Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966)**, that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows: (See MPEP Ch. 2141)

- a. Determining the scope and contents of the prior art;
 - b. Ascertaining the differences between the prior art and the claims in issue;
 - c. Resolving the level of ordinary skill in the pertinent art; and
 - d. Evaluating evidence of secondary considerations for indicating obviousness or nonobviousness.
13. Claims 49-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over:
Orr et al. 2003/0061012 (**Orr**); in view of
Official Notice; in further view of
Applicant Admitted Prior Art (**AAPA**).

Claims 1-48 (Canceled).

Claim 49 (Currently Amended). A land use planning system implemented on a computer to develop land and create trade specifications for service providers to build infrastructure upon land, comprising:

Orr et al. 2003/0061012 (Orr) discloses a method and system for performing four-dimensional, multiple consequence assessments of change in selected spaces.

ABSTRACT:

The present invention relates to a method of providing or updating a digital comprehensive plan for past, present and/or future community development or planning that is self-contained and capable of direct updating by inputting data into an interface control module, processing the data using the interface control module, developing digital models of at least one scenario based upon the processed data, and producing representative models of digital models.

a processor to implement land-use planning including providing information to a builder service provider, wherein a piece of land is identified;

Orr discloses a processor capable of performing the claimed features [0044].

a tangible computer readable medium with instructions embodied therein comprising:

Orr discloses a computer system which includes a computer readable medium and processor [0009 – computer-resident model, 0044 – computer hardware, processors, 0051 – computer hardware, 0056 – computer resident interactive interfaces, 0080 – computer].

(a) balance sheet computational tool₁ for implementing on a computer₁ that classifies quality of service for a category of service and creates a qualitative and quantitative balance sheet and the qualitative and quantitative balance sheet includes data, such included data having been gathered and stored; and

Applicant's specification 2004/0117777 [0116], states that the balance sheet computational tool may be a traditional spreadsheet software which a human developer may populate with data. Thus, the balance sheet is merely a tool which a human uses. Further, the balance sheet merely stores and displays data.

Examiner construes the claimed balance sheet features as Applicant Admitted Prior Art (AAPA) because Applicant has indicated that a traditional spreadsheet may be used.

Examiner takes Official Notice that an electronic spreadsheet (i.e., MS Excel, Oracle, MS Access, etc...) is capable of performing the balance sheet features claimed. Specifically, any spreadsheet has tools for ranking and sorting. For example, an electronic spreadsheet would be capable of performing the claimed features. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to use traditional well known spreadsheet tools to create the simply balance sheets claimed. Such tools are fully capable of performing the claimed feature and have long been used to solve problems in many industries including in the engineering, architectural, and design industries.

Further, Orr discloses analyzing [0047-0048, 0123] and assessing [0115, claims 7 and 9] data. These features are construed as the claimed qualitative and quantitative features.

It would have been obvious to one of ordinary skill in the art to use old and well known spreadsheet tools as disclosed by Official Notice in combination with the features disclosed by Orr to solve the problems claimed in the instant invention. Further, the addition of the Official Notice spreadsheet features produces no unforeseen improvements or unexpected results.

(b) a grid tool for implementing on a computer wherein a three dimensional assessment grid is generated by a computer having three axis, the three axis representing x=human, y=economic and z = environmental, wherein the assessment grid shows assessed values of present land use service data within sectors, wherein the assessment grid includes data;

Orr discloses tools for generating on a computer three and four dimensional models representative of various data necessary to model land use activities including human, economic, and environmental [0026; 0044; 0047 – human and environmental impacts; 0054 – three dimensional; 0060 – 3 dimensional representations of pop. growth, spatial changes, etc...; 0061; 0069; 0072; 0082; etc...].

[0047] The method 125 and the system 135 can be used to model any past, present and/or future interactions between any human-caused environmental impacts (such as population changes, infrastructure changes, traffic patterns, resource consumption and flows, agricultural patterns, water uses, etc.) and any natural environmental impacts (such as groundwater resources, forest type/productivity, weather changes, extreme weather events, climate changes, fire regimes, wetland presence and health, habitat type and health, geology, etc.). The method 125 and the system 135 may also be used to express a plurality of concerns as instructions to the system to portray, evaluate, assess or otherwise analyze the impact of a range of human activities on the natural environment for a variety of time domains.

[0048] Additionally, the method 125 and the system 135 can be used to portray, evaluate, assess or otherwise analyze the impacts for a range of naturally occurring events on the built or natural environment for a variety of time domains. It may include past, present and/or future interactions among attributes within the built, human-constructed or altered environment or within the natural environment, or any past, present and/or future external impacts on any space, place or community under consideration.

[0060] The ICM 200 can also be used to provide the User 100 a list of models, required data, other information and/or choices that the User 100 desires. The models may be numeric, spatial or 3-Dimensional representations of population growth, spatial changes in surface, subsurface or above ground attributes, natural events such as floods, fires, weather disasters, hydrology, traffic patterns, per-capita attributes, financial, or others. The desired data may be population, population attributes, multiple land use conditions and/or attributes, Geographic Information Systems (GIS) layers, financial and/or any information necessary to fully define the attributes, relationships and range of external impacts for the space under consideration. In this example, the GUIs 201 can be used to query the User 100 for any number of issues including issues of concern, rating of these issues as to priority, selected time frames, attributes, relationship algorithms and other relevant information. The GUIs 201 can also be used to conform the information inputted to a format usable by the VComp Module 300.

Orr at [0082] discloses displaying information in three dimensions using an x, y, and z axis. Further, it would be obvious to one of ordinary skill in the art to display information on such a three dimensional axis using a plurality of information such as claimed human factors, economic factors and environmental factors.

Orr at [0066] further discloses the value of evaluating human, economic and environmental factors and data and how they impact each other. It would be obvious to one of ordinary skill in the art to present this information in three dimensions on the x, y, z axis disclosed by Orr at [0082].

[0066] The VComP Module 300 can also use natural environment data such as species type, distribution densities, ecosystem baseline and change information and other natural resource data in GIS database to evaluate past, present and/or future impacts on ecosystems of alternative human or natural activities and events sorted by economic, social and environmental categories. For instance, urban encroachment and changing weather regions may individually or collectively have a variety of impacts on the natural environment and natural resources.

Orr at [0102] also discloses simulating scenarios involving economic, human and environmental occurrences and events.

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a memory, for storing data for access by a software program, having a relational database wherein services information is stored;

Orr discloses a database/memory for storing information [0066, 0088 – internal/external data storage, 0107 – alternative data storage locations, 0158 – database].

Orr may or may not expressly disclose the following:

a direct link stored in the relational database directly linking a first entity to the identified piece of land wherein the direct link includes text or symbols;

an indirect link stored in the relational database linking a second entity to the first entity so that the second entity is indirectly linked to the identified piece of land;

wherein the data included in the qualitative and quantitative balance sheet and the data included in the assessment grid are combined and direct and indirect links between and among the various entities are identified and stored in the relational database;

data representing a city infrastructure stored in the relational database, wherein the relational database includes data on services, wherein the direct and indirect links help define service information for the identified piece of land and wherein one of the services is the city infrastructure;

On page 8 of Applicant's Remarks, Applicant argues that Orr does not disclose indirect links or indirect links stored in a relational database. With respect, Examiner does not agree with Applicant's arguments and the claims remain rejected as follows.

Applicant's claimed links (direct and/or indirect links) are not a physical links (i.e., welds, mechanical connections, etc...) but rather Applicant's claimed links are abstractions or mere representations of how one item relates to another.

Examiner construes links to merely represent or define a relationship. Links are not anything physical or concrete. See Applicant's specification at US PGPub.

2004/0117777 [0053; 0093].

[0053] In one aspect, the Systems and Methods For Land-Use Development, Planning and Management is a framework for optimizing use of resources in a physical space comprising : links that link entities, having a relationship with a physical space, where the links define a relationship between two or more entities or between an entity and the physical space; and a feedback loop that allows user input or consumer feedback to be used in order to optimize one of consumer satisfaction and quality of life in services offered or proposed to be offered to consumers located in the physical space.

[0093] In one embodiment, the systems and methods are a framework 106 or infrastructure to link private infrastructure, public infrastructure and/or their surrounding environs. As seen in FIG. 2, the framework 106 comprises a list of links. The links identify or link two or more entities, or link an entity with the physical space. The links may be direct or indirect links. For example, link 208 directly links an entity 202 to the physical space 204, but link 208 indirectly links entity 202 to physical space 204. The links may be stored in a database, a relational database, or hyperlink storage as hyperlinks. The links may be two-way and comprise text and/or symbols. As discussed in more detail in the remaining figures and detailed description, the framework 106 manages the links, the management may be conducted centrally or de-centrally.

Examiner takes Official Notice that the claimed links (i.e., abstract relationships) are old and well known. For example, it is old and well known to create organizational charts showing links or relationships between upper management, middle management, and staff. Another example is a process flow chart or sheet which shows how a mechanical or business process flows, relationships between certain elements, etc... Another old and well known example of Applicant's claimed links would be a flowchart indicating how a software program works/functions complete with symbols indicative of relational operators and decision matrices.

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to use such old and well known abstract links/relationships to show how different aspects of the invention are connected and work together. Further, it would have been obvious to one of ordinary skill in the art to combine the features of Orr with the features disclosed by Official Notice to make the obvious links or relationships claimed in the instant invention. Further, the addition of the Official Notice linking/relationship features produces no unforeseen improvements or unexpected results.

Examiner takes Official Notice that it would be obvious to one of ordinary skill in the art to define links or relationships between entities and/or between entities and physical space and to store that data in a database. For example, a link may be the distance between two locations or two structures. Or a link may define the legal relationship between property (e.g., Greenacre has an access easement to use road over Blackacre).

As claimed, links are abstract descriptions which define relationships. Thus, the scope of the presently claimed links is INFINITE as the examiner can conceive of limitless links which define the relationship between entities.

Further, Orr does disclose defining relationships [0009]. He discloses links between future planning and decision making [0015]. See also Orr at [0016, 0060, 0094 – determine and respond to the spatial relationships among various attributes].

It would have been obvious to one of ordinary skill to combine the Official Notice relationship/linking features with Orr's similar linking and decision making features to produce an invention with both. Further, the addition of the Official Notice linking/relationship features produces no unforeseen improvements or unexpected results.

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wherein the identification of the piece of land is stored in the memory;

Orr discloses a database/memory for storing information [0066, 0088 – internal/external data storage, 0107 – alternative data storage locations, 0158 – database].

Orr may or may not expressly disclose the following:

a builder service provider trade specification chart generated using the qualitative and quantitative balance sheet and the relational database, the builder service provider trade specification chart includes data on the services to be provided by a builder and a graphics representation for the builder to use in providing services; and

On page 7 of Applicant's Remarks, Applicant argues that Orr does not disclose a trade specification chart or a builder trade specification chart and thus the claim should be allowed.

With respect, the Examiner does not find Applicant's arguments persuasive and the claims remain rejected as follows.

Examiner takes Official Notice that an electronic spreadsheet (i.e., MS Excel, Oracle, MS Access, etc...) is capable of performing the balance sheet features claimed including creating and displaying the claimed service provider trade specification charts. Further, any spreadsheet has tools for creating charts, graphics, and displaying the information claimed. Further, Applicant's claimed features comprises nothing more than the mere representation of data (i.e., a human developer inputs data into a spreadsheet for display).

Applicant's specification 2004/0117777 [0116], states that the balance sheet computational tool may be a traditional spreadsheet software which a human developer may populate with data. Thus, the balance sheet is merely a tool which a human uses. Further, the balance sheet merely stores and displays data. Examiner construes the

claimed balance sheet features as Applicant Admitted Prior Art (AAPA) because Applicant has indicated that a traditional spreadsheet may be used.

Further, Examiner takes Official Notice that it is old and well known to provide job specifications for any project which would include specification about what types and grade of products to use on the project and include information about what type or level of skill any subcontractors or trades must have who are working on the project. For example, it would obvious for construction or architectural documents to require all electrical work to be performed by or under the supervision of a journeymen or master electrician.

It would have been obvious to one of ordinary skill in the art to combine the old and well known features of Official Notice with the features of Orr to produce the claimed invention. Further, the addition of the Official Notice spreadsheet features produces no unforeseen improvements or unexpected results.

a display for displaying the builder service provider trade specification chart, wherein the builder service provider trade specification chart is used by a builder service provider to construct a building.

Orr discloses displays capable of displaying the claimed data [0064; 0068; 0132 – GUI display; 0135-0136; claims 16 – displaying the representative models visually; claim 17].

Claim 50 (Previously Presented). The system of claim 49, further comprising the identified piece of land.

Orr discloses identifying a particular piece land by boundaries and other attributes [0088].

Further, Examiner takes Official Notice that identifying a piece of land for development is an obvious and necessary step in land use planning and development.

Claim 51 (Previously Presented). The system of claim 49, further comprising the constructed building.

Orr discloses building algorithms and building type [0103].

Claim 52 (Previously Presented). The system of claim 49, further comprising a 3D virtual reality tool for viewing the building to be constructed on the display.

**Orr discloses three-dimensional virtual technologies for displaying output [0054;
0135-0136 – virtual reality].**

[0135] A Visualization Module (VM) 501, which makes up part of the FO 500, can be used to provide single or multiple displays for User 100 of any or all of the DComP representative models. The displays provided by the VM 501 can include but are not limited to maps in GIS compatible or other formats, three dimensional models using any number of internal or commercially available software, overlays, which may be maps applied to any spatial or three dimensional representation to portray, extract or highlight any variety of existing, historical and/or proposed attributes.

[0136] The displays of the VM 501 may be of any timeframe as appropriate to illustrate a scenario or outcome or any number of immersive, virtual reality, holographic, or other communication media which effectively convey complex information to a lay or expert audience. These displays can basically be used to aid in visualizing any range of attributes, relationships, external factors and time periods defining a space responding to a plurality of decisions which the User 100 may be considering.

Orr may or may not expressly disclose the following:

Claim 53 (Previously Presented). The system of claim 49, further comprising an evolution grid and an operational specification chart, wherein each of the operational specification chart and evolution grid are generated using the relational database and are generated prior to the generation of the builder service provider trade specification chart.

Examiner takes Official Notice that an electronic spreadsheet (i.e., MS Excel, Oracle, MS Access, etc...) is capable of performing the grid and chart features claimed including creating and displaying the claimed evolution grid and operational specification charts. Further, any spreadsheet has tools for creating charts, graphics, and displaying the information claimed. Further, Applicant's claimed features comprises nothing more than the mere representation of data (i.e., a human developer inputs data into a spreadsheet for display).

See Applicant's specification 2004/0117777 [0116], which states the use of traditional spreadsheet software which a human developer may populate with data. Examiner construes the claimed features as Applicant Admitted Prior Art (AAPA) because Applicant has indicated that a traditional spreadsheet may be used.

Further, Examiner takes Official Notice that it is old and well known to provide the evolution grid and operational specifications chart and that any traditional spreadsheet tool may be used to create these features.

For example, it would obvious for construction or architectural documents to require the creation of a job/project schedule using well known scheduling tools and to

require the creation and implementation of specification of all sorts to ensure compliance with project design.

It would have been obvious to one of ordinary skill in the art to combine the old and well known features of Official Notice with the features of Orr to produce the claimed invention. Further, the addition of the Official Notice features produces no unforeseen improvements and/or unexpected results.

Claim 54 (Previously Presented). The system of claim 49, further comprising a modeling tool.

Orr discloses modeling tools [0002; 0009; 0023-0026; etc...].

Claim 55 (Previously Presented). The system of claim 49, wherein one or more of the direct links has a two-way bi-directional relationship.

Claim 55, has similar limitations as of Claim(s) 49, therefore it is rejected under the same rationale as Claim(s) 49.

Claim 56 (Previously Presented). The system of claim 49, wherein one or more of the direct links is a hyperlink.

Claim 56, has similar limitations as of Claim(s) 49, therefore it is rejected under the same rationale as Claim(s) 49.

Orr discloses links which directly link a description of the future of a planning domain directly to decisions made or considered in the present [0015].

Claim 57 (Previously Presented). The system of claim 49, further comprising a quality of life measurement.

Orr discloses quality of life measurements criteria and assessment [0006; 0070; 0081 – life quality assessor; 0116; 0124-0126 – Life Quality Assessor (LQA); 0155; etc...].

[0070] The DComP Interface Module 203 can also be used to access a Decision Support System (DSS) Interface Module 205 (see FIG. 4) to enable the User 100 to request activation of one or more DSS programs. The use of the DSS programs allow a User 100 to assist in any interactive opinion solicitation and collective decision making activities or to access the DComP Learning Module 206 (see FIG. 4). The DComP Interface Module 205 can also enable the User 100 to collect information by activating the system's learning capabilities or by input by the User 100. The Optimization Interface Module 207 may then in turn utilize the information in directing the Optimizing Module 600 to identify the attributes and relationships necessary to control any of one or more given future attributes, such as quality of life, governmental service level, or water conservation to generate one or more optimized scenarios.

[0081] In FIG. 6, the VComP module 300 is illustrated. As illustrated in FIG. 6, the interface control unit or module 200 can be communicatively coupled to a spatial growth calculator 301, an event calculator 302, and/or an impact calculator 303. These calculators, in turn, can be communicatively coupled to an output module 304. This output module 304 can then be communicatively coupled to a spatial attribute assessor 305, an event assessor 306, an impact assessor 307, a financial assessor 308, a resource assessor 309, and/or a life quality assessor 310. These assessors, in turn, can be communicatively coupled to the DComP module 400 and/or an optimization module 600, which in turn can be communicatively coupled back to the interface control unit or module 200.

[0124] In addition to the RA 309, a Life Quality Assessor (LQA) 310 of the VComP Module 300 can be used with or without the other modules to accept data regarding the quality of life of a simulated model. The data can include but are not limited to a plurality of indicators regarding life quality, place quality, and general public satisfaction with the attributes of a given space (hereafter indicators) or can be used with time increments past, present and/or future associated with these indicators from the OM 304 or the User 100 via the GUI 201. Other attributes of the space which may be associated with the indicators and time increments may also be assessed to determine, calculate or otherwise manipulate a plurality of relationships between indicators and the attributes.

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Claim 58 (Previously Presented). The system of claim 49, wherein the first entity is a public entity and wherein the first entity comprises an organizational infrastructure including a building.

Orr discloses infrastructure [0065; 0083], various entities [0086], and governmental or public service infrastructure [0114].

Claim 59 (Previously Presented). The system of claim 49, further comprising:

a land use plan for the identified piece of land; and

wherein the tangible computer readable medium further comprises a computer software instruction set for performing an economic selection wherein economic selection is made by use of an equation $A+B-C \leq A$ for economic evaluation, wherein A represents: the cost of existing services, B represents: the increased cost due to improving a service or services, and C represents: person or entities concerned with one or more of: economy of scale realized when a service is implemented, qualitative increase in level and number of services, a rapid return on investment.

Examiner construes everything following wherein... as non-functional data and intended use limitations. In system and apparatus claims, non-functional data and intended use limitation are given little to no patentable weight. Any reference disclosing a balance sheet computation tool would anticipate these claimed features.

Orr discloses a land use planning model which includes economic evaluations and financial investments [0065-0066 – economic; 0101 – financial; 0102 – new economic scenarios; 0105 – optimize financial investments; 0110 - arranging these event scenarios by economic cost/benefit or other analytical methodology into a plurality of categories; 0123; 0157].

[0157] Using the system, the OM 600 can be automatically or a User 100 directed via the GUI 201 to transfer data to the VComp Module 300. This data transfer can be used to provide a mechanism by which other DComp representative models may be produced for User 100 evaluation and review. For land use and resource applications, the OM 600 can be used to perform numerous and repeated evaluations of the long-term consequences of a variety of economic, education, growth policies, zoning and zoning changes and other factors with specific implementation mechanisms, such as building codes, financial mechanisms, or the assignment of land for development.

Claim 60 (Previously Presented). The system of claim 49, wherein the tangible computer readable medium further comprises a computer software instruction set for performing an economic selection wherein the economic selection is made by use of an equation $A+B-C$ greater than A for economic evaluation, wherein A represents: the cost of existing services, B represents: the increased cost due to improving a service or services, and C represents: person or entities concerned with one or more of: economy of scale realized when a service is implemented, qualitative increase in level and number of services, a rapid return on investment.

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[0157] Using the system, the OM 600 can be automatically or a User 100 directed via the GUI 201 to transfer data to the VComp Module 300. This data transfer can be used to provide a mechanism by which other DComp representative models may be produced for User 100 evaluation and review. For land use and resource applications, the OM 600 can be used to perform numerous and repeated evaluations of the long-term consequences of a variety of economic, education, growth policies, zoning and zoning changes and other factors with specific implementation mechanisms, such as building codes, financial mechanisms, or the assignment of land for development.

Claim 61 (new). A method using a computer for implementing a land use plan to develop land and create trade specifications for service providers to use in building infrastructure upon land, comprising:

identifying a piece of land, wherein the identification of the piece of land is stored in memory;

creating a qualitative and quantitative balance sheet, the qualitative and quantitative balance sheet including data, such included data having been gathered and stored in a computer;

classifying, using a computer, a quality of service for a category of service;

generating a three-dimensional assessment grid using a computer, the three dimensional grid having three axis, the three axis representing x =human, y =economic and z = environmental, wherein the assessment grid shows assessed values of present land use service data within sectors;

storing data in memory for access by a software program having a relational database wherein services information is stored;

storing a direct link in the relational database directly linking a first entity to the identified piece of land wherein the direct link includes text or symbols;

storing an indirect link in the relational database linking a second entity to the first entity so that the second entity is indirectly linked to the identified piece of land;

identifying and storing direct and indirect links between and among various entities;

storing data representing a city infrastructure in the relational database, wherein the relational database includes data on services, wherein the direct and indirect links help define

service information for the identified piece of land and wherein one of the services is the city infrastructure;

generating a builder service provider trade specification chart using the qualitative and quantitative balance sheet and the relational database, the builder service provider trade specification chart includes data on the services to be provided by a builder and a graphics representation for the builder to use in providing services; and

displaying, on a display device, a builder service provider trade specification chart, wherein the builder service provider trade specification chart is used by a builder service provider to construct a building.

Claim 61, has similar limitations as of Claim(s) 49, therefore it is rejected under the same rationale as Claim(s) 49.

Claim 62 (new). The method of claim 61, further comprising creating an evolution grid.

Claim 62, has similar limitations as of Claim(s) 49 and 53, therefore it is rejected under the same rationale as Claim(s) 49 and 53.

Claim 63 (new). The method of claim 62 further comprising creating an operational specification chart, wherein each of the operational specification chart and evolution grid are generated using the relational database and are generated prior to the generation of the builder service provider trade specification chart.

Claim 63, has similar limitations as of Claim(s) 49 and 53, therefore it is rejected under the same rationale as Claim(s) 49 and 53.

Claim 64 (new). The method of claim 61, wherein one or more of the direct links has a two-way bi-directional relationship.

Claim 64, has similar limitations as of Claim(s) 49 and 55, therefore it is rejected under the same rationale as Claim(s) 49 and 55.

Claim 65 (new). The method of claim 61, further comprising:
generating a land use plan for the identified piece of land;
performing an economic selection, using a computer, the economic selection is made by use of an equation $A+B-C < \text{or} = A$ for economic evaluation, wherein A represents: the cost of existing services, B represents: the increased cost due to improving a service or services, and C represents: person or entities concerned with one or more of economy of scale realized when a service is implemented, qualitative increase in level and number of services, a rapid return on investment.

Claim 65, has similar limitations as of Claim(s) 49 and 59, therefore it is rejected under the same rationale as Claim(s) 49 and 59.

Claim 66 (new). The method of claim 61, further comprising:
performing an economic selection wherein the economic selection is made by use of an equation $A+B-C$ greater than A for economic evaluation, wherein A represents: the cost of existing services, B represents: the increased cost due to improving a service or services, and C represents: person or entities concerned with one or more of: economy of scale realized when a service is implemented, qualitative increase in level and number of services, a rapid return on investment.

Claim 66, has similar limitations as of Claim(s) 49 and 60, therefore it is rejected under the same rationale as Claim(s) 49 and 60.

Conclusion

Response to Arguments

Regarding Claim 49 (Currently Amended).

On page 8 of Applicant's Remarks, Applicant argues that Orr does not disclose indirect links or indirect links stored in a relational database. With respect, Examiner does not agree with Applicant's arguments and the claims remain rejected as follows.

Applicant's claimed links (direct and/or indirect links) are not a physical links (i.e., welds, mechanical connections, etc...) but rather Applicant's claimed links are abstractions or mere representations of how one item relates to another.

Examiner construes links to merely represent or define a relationship. Links are not anything physical or concrete. See Applicant's specification at US PGPub.

2004/0117777 [0053; 0093].

[0053] In one aspect, the Systems and Methods For Land-Use Development, Planning and Management is a framework for optimizing use of resources in a physical space comprising : links that link entities, having a relationship with a physical space, where the links define a relationship between two or more entities or between an entity and the physical space; and a feedback loop that allows user input or consumer feedback to be used in order to optimize one of consumer satisfaction and quality of life in services offered or proposed to be offered to consumers located in the physical space.

[0093] In one embodiment, the systems and methods are a framework 106 or infrastructure to link private infrastructure, public infrastructure and/or their surrounding environs. As seen in FIG. 2, the framework 106 comprises a list of links. The links identify or link two or more entities, or link an entity with the physical space. The links may be direct or indirect links. For example, link 208 directly links an entity 202 to the physical space 204, but link 208 indirectly links entity 202 to physical space 204. The links may be stored in a database, a relational database, or hyperlink storage as hyperlinks. The links may be two-way and comprise text and/or symbols. As discussed in more detail in the remaining figures and detailed description, the framework 106 manages the links, the management may be conducted centrally or de-centrally.

Examiner takes Official Notice that the claimed links (i.e., abstract relationships) are old and well known. For example, it is old and well known to create organizational charts showing links or relationships between upper management, middle management,

and staff. Another example is a process flow chart or sheet which shows how a mechanical or business process flows, relationships between certain elements, etc... Another old and well known example of Applicant's claimed links would be a flowchart indicating how a software program works/functions complete with symbols indicative of relational operators and decision matrices.

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to use such old and well known abstract links/relationships to show how different aspects of the invention are connected and work together. Further, it would have been obvious to one of ordinary skill in the art to combine the features of Orr with the features disclosed by Official Notice to make the obvious links or relationships claimed in the instant invention. Further, the addition of the Official Notice linking/relationship features produces no unforeseen improvements or unexpected results.

Examiner takes Official Notice that it would be obvious to one of ordinary skill in the art to define links or relationships between entities and/or between entities and physical space and to store that data in a database. For example, a link may be the distance between two locations or two structures. Or a link may define the legal relationship between property (e.g., Greenacre has an access easement to use road over Blackacre).

As claimed, links are abstract descriptions which define relationships. Thus, the scope of the presently claimed links is INFINITE as the examiner can conceive of limitless links which define the relationship between entities.

Further, Orr does disclose defining relationships [0009]. He discloses links between future planning and decision making [0015]. See also Orr at [0016, 0060, 0094 – determine and respond to the spatial relationships among various attributes].

It would have been obvious to one of ordinary skill to combine the Official Notice relationship/linking features with Orr's similar linking and decision making features to produce and invention with both. Further, the addition of the Official Notice linking/relationship features produces no unforeseen improvements or unexpected results.

On page 7 of Applicant's Remarks, Applicant argues that Orr does not disclose a trade specification chart or a builder trade specification chart and thus the claim should be allowed.

With respect, the Examiner does not find Applicant's arguments persuasive and the claims remain rejected as follows.

Examiner takes Official Notice that an electronic spreadsheet (i.e., MS Excel, Oracle, MS Access, etc...) is capable of performing the balance sheet features claimed including creating and displaying the claimed service provider trade specification charts. Further, any spreadsheet has tools for creating charts, graphics, and displaying the information claimed. Further, Applicant's claimed features comprises nothing more than the mere representation of data (i.e., a human developer inputs data into a spreadsheet for display).

Applicant's specification 2004/0117777 [0116], states that the balance sheet computational tool may be a traditional spreadsheet software which a human developer may populate with data. Thus, the balance sheet is merely a tool which a human uses. Further, the balance sheet merely stores and displays data. Examiner construes the claimed balance sheet features as Applicant Admitted Prior Art (AAPA) because Applicant has indicated that a traditional spreadsheet may be used.

Further, Examiner takes Official Notice that it is old and well known to provide job specifications for any project which would include specification about what types and grade of products to use on the project and include information about what type or level of skill any subcontractors or trades must have who are working on the project. For example,

it would obvious for construction or architectural documents to require all electrical work to be performed by or under the supervision of a journeymen or master electrician.

It would have been obvious to one of ordinary skill in the art to combine the old and well known features of Official Notice with the features of Orr to produce the claimed invention. Further, the addition of the Official Notice spreadsheet features produces no unforeseen improvements or unexpected results.

Regarding Claim 53 (Previously Presented).

On page 9 of Applicant's Remarks, Applicant argues that the claim language "evolution grid and operational specification chart" have not been addressed.

Examiner takes Official Notice that an electronic spreadsheet (i.e., MS Excel, Oracle, MS Access, etc...) is capable of performing the grid and chart features claimed including creating and displaying the claimed evolution grid and operational specification charts. Further, any spreadsheet has tools for creating charts, graphics, and displaying the information claimed. Further, Applicant's claimed features comprises nothing more than the mere representation of data (i.e., a human developer inputs data into a spreadsheet for display).

See Applicant's specification 2004/0117777 [0116], which states the use of traditional spreadsheet software which a human developer may populate with data. Examiner construes the claimed features as Applicant Admitted Prior Art (AAPA) because Applicant has indicated that a traditional spreadsheet may be used.

Further, Examiner takes Official Notice that it is old and well known to provide the evolution grid and operational specifications chart and that any traditional spreadsheet tool may be used to create these features.

For example, it would obvious for construction or architectural documents to require the creation of a job/project schedule using well known scheduling tools and to require the creation and implementation of specification of all sorts to ensure compliance with project design.

It would have been obvious to one of ordinary skill in the art to combine the old and well known features of Official Notice with the features of Orr to produce the claimed invention. Further, the addition of the Official Notice features produces no unforeseen improvements and/or unexpected results.

Regarding Claim 55 (Previously Presented).

The system of claim 49, wherein one or more of the direct links has a two-way bi-directional relationship.

As argued in claim 49 above, the linking features are abstract, non-physical representations of relationships between items. Thus, the claimed two-way bi-directional relationships are also abstract and rejected for the same reasons outlined in claim 49. Further, it is old and well known that relationships and links may have two dimensions to them. For example, in an organizational chart there is a bi-directional-relationship or two-way relationship between a supervisor and a subordinate in that the supervisor directs and monitors a subordinates work while the subordinate takes orders from a supervisor.

Claim 59 (Previously Presented). The system of claim 49, further comprising:

a land use plan for the identified piece of land; and

wherein the tangible computer readable medium further comprises a computer software instruction set for performing an economic selection wherein economic selection is made by use of an equation $A+B-C < \text{or} = A$ for economic evaluation, wherein A represents: the cost of existing services, B represents: the increased cost due to improving a service or services, and C represents: person or entities concerned with one or more of: economy of scale realized when a service is implemented, qualitative increase in level and number of services, a rapid return on investment.

Examiner construes everything following wherein... as non-functional data and intended use limitations. In system and apparatus claims, non-functional data and intended use limitation are given little to no patentable weight. Any reference disclosing a balance sheet computation tool would anticipate these claimed features.

Orr discloses a land use planning model which includes economic evaluations and financial investments [0065-0066 – economic; 0101 – financial; 0102 – new economic scenarios; 0105 – optimize financial investments; 0110 - arranging these event scenarios by economic cost/benefit or other analytical methodology into a plurality of categories; 0123; 0157].

[0157] Using the system, the OM 600 can be automatically or a User 100 directed via the GUI 201 to transfer data to the VComp Module 300. This data transfer can be used to provide a mechanism by which other DComp representative models may be produced for User 100 evaluation and review. For land use and resource applications, the OM 600 can be used to perform numerous and repeated evaluations of the long-term consequences of a variety of economic, education, growth policies, zoning and zoning changes and other factors with specific implementation mechanisms, such as building codes, financial mechanisms, or the assignment of land for development.

Regarding Claim 60 (Previously Presented).

At page 9 of Applicant's Remarks, Applicant argues that Examiner failed to address the limitation in the preamble "performing an economic selection."

In fact Orr does disclose making economic decisions. Orr discloses a land use planning model which includes economic evaluations and financial investments [0065-0066 – economic; 0101 – financial; 0102 – new economic scenarios; 0105 – optimize financial investments; 0110 - arranging these event scenarios by economic cost/benefit or other analytical methodology into a plurality of categories; 0123; 0157].

[0157] Using the system, the OM 600 can be automatically or a User 100 directed via the GUI 201 to transfer data to the VCompP Module 300. This data transfer can be used to provide a mechanism by which other DCompP representative models may be produced for User 100 evaluation and review. For land use and resource applications, the OM 600 can be used to perform numerous and repeated evaluations of the long-term consequences of a variety of economic, education, growth policies, zoning and zoning changes and other factors with specific implementation mechanisms, such as building codes, financial mechanisms, or the assignment of land for development.

THIS ACTION IS MADE FINAL

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW T. SITTNER whose telephone number is (571) 270-7137. The examiner can normally be reached on Monday-Friday, 8:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jamisue (Jami) A Plucinski can be reached on (571) 272-6811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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